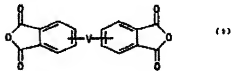


**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A thermosetting resin composition comprising at least a polyimide resin component (A) containing at least one polyimide resin, a phenol resin component (B) containing at least one phenol resin, and an epoxy resin component (C) containing at least one epoxy resin, wherein the mixing ratio by weight (A)/[(B)+(C)] is in a range of 0.4 to 2.0, the mixing ratio by weight being the ratio of the weight of the polyimide resin component (A) to the total weight of the phenol resin component (B) and the epoxy resin component (C), wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the acid dianhydride component contains at least an acid dianhydride represented by general formula (1):



wherein V represents a direct bond, --O--, --O-T-O--, --(C=O)--, --C(CF<sub>3</sub>)<sub>2</sub>--, or --C(CH<sub>3</sub>)<sub>2</sub>--, T representing a divalent organic group.

2. (Previously Presented) The thermosetting resin composition according to claim 1, wherein the mixing ratio by mole (B)/(C) is in a range of 0.4 to 1.2, the mixing ratio by mole being the ratio of the number of moles of the hydroxyl group of the phenol resin contained in the phenol resin component (B) to the number of

moles of the epoxy group of the epoxy resin contained in the epoxy resin component (C).

3. (Previously Presented) The thermosetting resin composition according to claims 1 or 2, wherein the polyimide resin (A) contains a soluble polyimide resin.

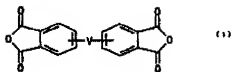
4. (Previously Presented) The thermosetting resin composition according to claim 3, wherein the polyimide resin (A) dissolves in an amount of 1% by weight or more in at least one organic solvent selected from the group consisting of dioxolane, dioxane, tetrahydrofuran, N,N-dimethylformamide, N,N-dimethylacetamide, and N-methyl-2-pyrrolidone in a temperature range of 15°C to 100°C.

5. (Previously Presented) The thermosetting resin composition according to claim 4, wherein the polyimide resin (A) contains at least one component for imparting organic solvent solubility which is selected from the group consisting of an aliphatic compound component, an alicyclic compound component, and a bisphenol compound-alkylene oxide adduct component, so as to exhibit solubility in a mixed solvent containing a low-boiling organic solvent.

6. (Canceled)

7. (Currently Amended) A thermosetting resin composition comprising at least a polyimide resin component (A) containing at least one polyimide resin, a phenol resin component (B) containing at least one phenol resin, and an epoxy resin

component (C) containing at least one epoxy resin, wherein the mixing ratio by weight (A)/[(B)+(C)] is in a range of 0.4 to 2.0, the mixing ratio by weight being the ratio of the weight of the polyimide resin component (A) to the total weight of the phenol resin component (B) and the epoxy resin component (C), wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the acid dianhydride component contains at least an acid dianhydride represented by general formula (1):

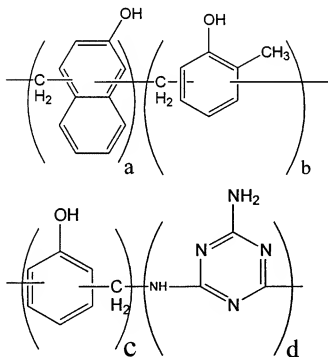


wherein V represents a direct bond, --O--, --O-T-O--, --(C=O)--, --C(CF<sub>3</sub>)<sub>2</sub>-- , or --C(CH<sub>3</sub>)<sub>2</sub>--, T representing a divalent organic group

~~The thermosetting resin composition according to claim 6~~, wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the diamine component or the isocyanate component contains at least any one of a siloxane diamine, a diamine containing a hydroxyl group and/or a carboxyl group, a diamine having amino groups at the meta positions, a diamine having amino groups at the ortho positions, an isocyanate having an amino group at the meta position, and an isocyanate having an amino group at the ortho position.

8. (Currently Amended) A thermosetting resin composition ~~according to claim 7~~, comprising at least a polyimide resin component (A) containing at least one

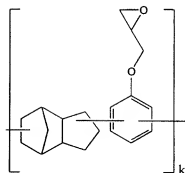
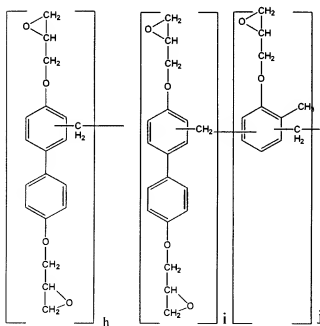
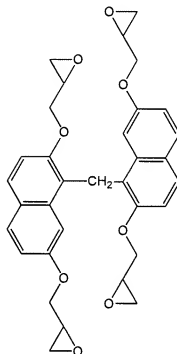
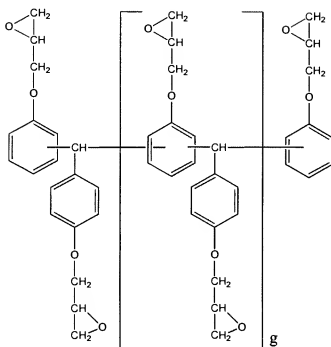
polyimide resin, a phenol resin component (B) containing at least one phenol resin, and an epoxy resin component (C) containing at least one epoxy resin, wherein the mixing ratio by weight (A)/[(B)+(C)] is in a range of 0.4 to 2.0, the mixing ratio by weight being the ratio of the weight of the polyimide resin component (A) to the total weight of the phenol resin component (B) and the epoxy resin component (C), wherein the phenol resin component (B) contains at least one phenol resin selected from the group consisting of compounds having structures represented by the formulae:



wherein a, b, c, and d, ~~and e~~ each represent an integer of 1 to 10.

9. (Currently Amended) A thermosetting resin composition ~~according to claim 8,~~ comprising at least a polyimide resin component (A) containing at least one

polyimide resin, a phenol resin component (B) containing at least one phenol resin and an epoxy resin component (C) containing at least one epoxy resin, wherein the mixing ratio by weight  $(A)/[(B)+(C)]$  is in a range of 0.4 to 2.0, the mixing ratio by weight being the ratio of the weight of the polyimide resin component (A) to the total weight of the phenol resin component (B) and the epoxy resin component (C), wherein the epoxy resin component (C) contains at least one epoxy resin selected from the group consisting of compounds having structures represented by the formulae:

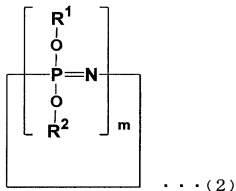


wherein g, h, i, j, and k each represent an integer of 1 to 10.

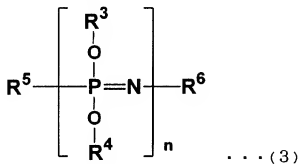
10. (Original) A thermosetting resin composition comprising at least a polyimide resin (A) containing at least one polyimide resin, a phosphazene compound (D) containing at least one phosphazene compound, and a cyanate ester compound (E) containing at least one cyanate ester compound, wherein the phosphazene compound (D) comprises a phenolic hydroxyl group-containing phenoxyphosphazene compound (D-1) and/or a crosslinked phenoxyphosphazene compound (D-2) prepared by crosslinking the phenoxyphosphazene compound (D-1), the crosslinked phenoxyphosphazene compound (D-2) having at least one phenolic hydroxyl group.

11. (Previously Presented) The thermosetting resin composition according to claim 10, wherein the mixing ratio by weight  $(D)/[(A)+(D)+(E)]$  is in a range of 0.01 to 0.4, the mixing ratio by weight being the ratio of the weight of the phosphazene compound (D) to the total weight of the polyimide resin (A), the phosphazene compound (D), and the cyanate ester compound (E).

12. (Previously Presented) The thermosetting resin composition according to claims 10 or 11, wherein the phenoxyphosphazene compound (D-1) comprises at least a cyclic phenoxyphosphazene compound (D-11) represented by general formula (2):



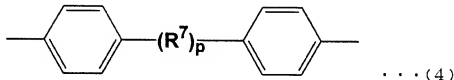
wherein m represents an integer of 3 to 25; R<sup>1</sup> and R<sup>2</sup> each represent a phenyl group or a hydroxyphenyl group; and at least one hydroxyphenyl group is contained per molecule and/or a linear phenoxyphosphazene compound (D-12) represented by general formula (3):



wherein n represents an integer of 3 to 10,000; R<sup>3</sup> and R<sup>4</sup> each represent a phenyl group or a hydroxyphenyl group; at least one hydroxyphenyl group is contained per molecule; R<sup>5</sup> represents -N=P(OC<sub>6</sub>H<sub>5</sub>)<sub>3</sub>, -N=P(OC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>(OC<sub>6</sub>H<sub>4</sub>OH), -N=P(OC<sub>6</sub>H<sub>5</sub>)(OC<sub>6</sub>H<sub>4</sub>OH)<sub>2</sub>, -N=P(OC<sub>6</sub>H<sub>4</sub>OH)<sub>3</sub>, -N=P(O)OC<sub>6</sub>H<sub>5</sub>, or -N=P(O)(OC<sub>6</sub>H<sub>4</sub>OH); and R<sup>6</sup> represents -P(OC<sub>6</sub>H<sub>5</sub>)<sub>4</sub>, -P(OC<sub>6</sub>H<sub>5</sub>)<sub>3</sub>(OC<sub>6</sub>H<sub>4</sub>OH), -P(OC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>(OC<sub>6</sub>H<sub>4</sub>OH)<sub>2</sub>, -P(OC<sub>6</sub>H<sub>5</sub>)(OC<sub>6</sub>H<sub>4</sub>OH)<sub>3</sub>, -P(OC<sub>6</sub>H<sub>4</sub>OH)<sub>4</sub>, -P(O)(OC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>, -P(O)(OC<sub>6</sub>H<sub>5</sub>)(OC<sub>6</sub>H<sub>4</sub>OH), or -P(O)(OC<sub>6</sub>H<sub>4</sub>OH)<sub>2</sub>.



13. (Previously Presented) The thermosetting resin composition according to claim 12, wherein the crosslinked phenoxyphosphazene compound (D-2) is prepared by crosslinking the phenoxyphosphazene compound (D-1) with a phenylene-based crosslinking group containing at least any one of an o-phenylene group, an m-phenylene group, a p-phenylene group, and a bisphenylene group represented by general formula (4):



wherein  $R^7$  represents  $-C(CH_3)_2-$ ,  $-SO_2-$ ,  $-S-$ , or  $-O-$ ; and p represents 0 or 1.

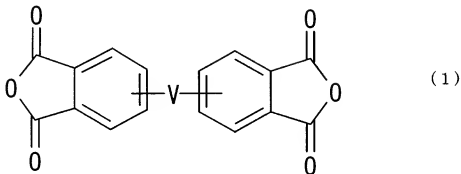
14. (Previously Presented) The thermosetting resin composition according to claim 13, wherein the crosslinked phenoxyphosphazene compound (D-2) is a phenylene-based crosslinked phenoxyphosphazene compound (D-21) having at least one phenolic hydroxyl group, in which the cyclic phenoxyphosphazene compound (D-11) and/or the linear phenoxyphosphazene compound (D-12) are used as the phenoxyphosphazene compound, and the phenylene-based crosslinking group lies between two oxygen atoms of the phenoxyphosphazene compound (D-1), the phenyl group and the hydroxyphenyl group being separated from the oxygen atoms, and the content of the phenyl group and the hydroxyphenyl group in the crosslinked phenoxyphosphazene compound is in a range of 50% to 99.9% based on the total number of phenyl groups and hydroxyphenyl groups contained in the phenoxyphosphazene compound.

15. (Previously Presented) The thermosetting resin composition according to claim 14, wherein the polyimide resin (A) contains a soluble polyimide resin.

16. (Previously Presented) The thermosetting resin composition according to claim 15, wherein the polyimide resin (A) dissolves in an amount of 1% by weight or more in at least one organic solvent selected from the group consisting of dioxolane, dioxane, tetrahydrofuran, N,N-dimethylformamide, N,N-dimethylacetamide, and N-methyl-2-pyrrolidone in a temperature range of 15°C to 100°C.

17. (Previously Presented) The thermosetting resin composition according to claim 16, wherein the polyimide resin (A) contains at least one component for imparting organic solvent solubility which is selected from the group consisting of an aliphatic compound component, an alicyclic compound component, and a bisphenol compound-alkylene oxide adduct component, so as to exhibit solubility in a mixed solvent containing a low-boiling organic solvent.

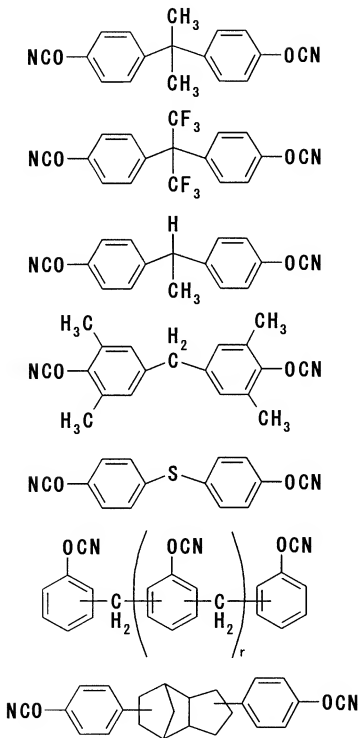
18. (Previously Presented) The thermosetting resin composition according to claim 17, wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the acid dianhydride component contains at least an acid dianhydride represented by general formula (1):



wherein V represents a direct bond, -O-, -O-T-O-,  
-O-CO-T-CO-O-, -(C=O)-, -C(CF<sub>3</sub>)<sub>2</sub>-, or -C(CH<sub>3</sub>)<sub>2</sub>-, T representing a divalent organic  
group.

19. (Previously Presented) The thermosetting resin composition according to claim 18, wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the diamine component or the isocyanate component contains at least any one of a siloxane diamine, a diamine containing a hydroxyl group and/or a carboxyl group, a diamine having amino groups at the meta positions, a diamine having amino groups at the ortho positions, an isocyanate having an amino group at the meta position, and an isocyanate having an amino group at the ortho position.

20. (Previously Presented) The thermosetting resin composition according to claim 19, wherein the cyanate ester compound (E) includes at least one compound selected from the group consisting of compounds represented by the group of general formulae (1):



• • • Group of general  
formulae (1)

wherein  $r$  represents 0 to 4.

21. (Previously Presented) A multilayer body comprising at least one resin layer formed of the thermosetting resin composition according to claims 1 or 10.

22. (Previously Presented) The multilayer body according to claim 21, wherein the multilayer body is used as a circuit board or a multilayer printed circuit board.

23. (Currently Amended) A circuit board comprising ~~a cured object prepared from the thermosetting resin composition according to claims 1 or 10~~ a layer having a dielectric constant of 3.3 or less and a dielectric loss tangent of 0.020 or less in a range of in a frequency range of 1 to 10 GHz and being formed on wiring boards or circuits, wherein the layer is obtained by curing a thermosetting resin composition comprising at least a polyimide resin component (A) containing at least one polyimide resin, a phenol resin component (B) containing at least one phenol resin, and an epoxy resin component (C) containing at least one epoxy resin, wherein the mixing ratio by weight  $(A)/[(B)+(C)]$  is in a range of 0.4 to 2.0, the mixing ratio by weight being the ratio of the weight of the polyimide resin component (A) to the total weight of the phenol resin component (B) and the epoxy resin component (C).

24. (New) The thermosetting resin composition according to claim 23, wherein the mixing ratio by mole  $(B)/(C)$  is in a range of 0.4 to 1.2, the mixing ratio

by mole being the ratio of the number of moles of the hydroxyl group of the phenol resin contained in the phenol resin component (B) to the number of moles of the epoxy group of the epoxy resin contained in the epoxy resin component (C).

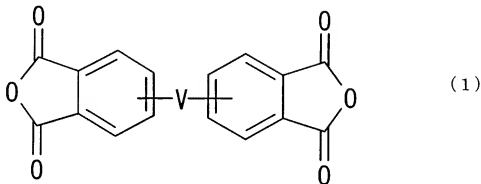
25. (New) The thermosetting resin composition according to claims 23 or 24, wherein the polyimide resin (A) contains a soluble polyimide resin.

26. (New) The thermosetting resin composition according to claim 25, wherein the polyimide resin (A) dissolves in an amount of 1% by weight or more in at least one organic solvent selected from the group consisting of dioxolane, dioxane, tetrahydrofuran, N,N-dimethylformamide, N,N-dimethylacetamide, and N-methyl-2-pyrrolidone in a temperature range of 15°C to 100°C.

27. (New) The thermosetting resin composition according to claim 26, wherein the polyimide resin (A) contains at least one component for imparting organic solvent solubility which is selected from the group consisting of an aliphatic compound component, an alicyclic compound component, and a bisphenol compound-alkylene oxide adduct component, so as to exhibit solubility in a mixed solvent containing a low-boiling organic solvent.

28. (New) The thermosetting resin composition according to claim 27, wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the acid

dianhydride component contains at least an acid dianhydride represented by general formula (1):

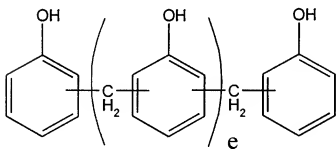
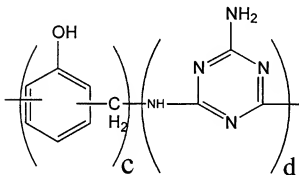
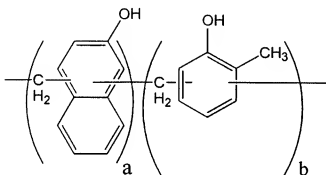


wherein V represents a direct bond, -O-, -O-T-O-, -O-CO-T-CO-O-, -(C=O)-, -C(CF<sub>3</sub>)<sub>2</sub>-, or -C(CH<sub>3</sub>)<sub>2</sub>-, T representing a divalent organic group.

29. (New) The thermosetting resin composition according to claim 28, wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the diamine component or the isocyanate component contains at least any one of a siloxane diamine, a diamine containing a hydroxyl group and/or a carboxyl group, a diamine having amino groups at the meta positions, a diamine having amino groups at the ortho positions, an isocyanate having an amino group at the meta position, and an isocyanate having an amino group at the ortho position.

30. (New) The thermosetting resin composition according to claim 29, wherein the phenol resin component (B) contains at least one phenol resin selected

from the group consisting of compounds having structures represented by the formulae:



wherein a, b, c, d, and e each represent an integer of 1 to 10.

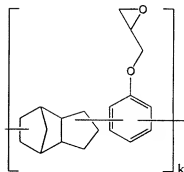
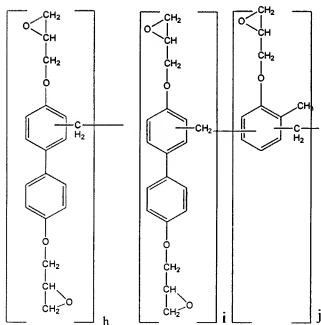
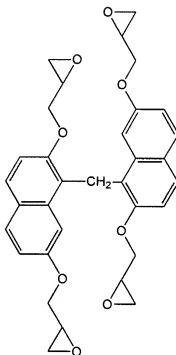
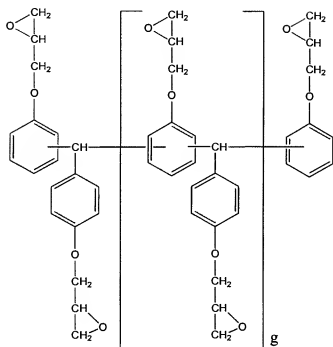
31. (New) The thermosetting resin composition according to claim 30, wherein the epoxy resin component (C) contains at least one epoxy resin selected



Appl. No. 10/552,540  
Amdt. Dated August 30, 2007  
Reply to Office Action of May 3, 2007

Attorney Docket No. 81844.0044  
Customer No.: 26021

from the group consisting of compounds having structures represented by the formulae:

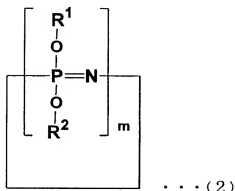


wherein g, h, i, j, and k each represent an integer of 1 to 10.

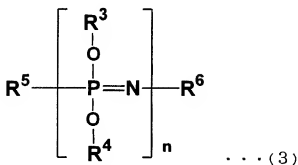
32. (New) A thermosetting resin composition according to claim 23, further comprising at least a polyimide resin (A) containing at least one polyimide resin, a phosphazene compound (D) containing at least one phosphazene compound, and a cyanate ester compound (E) containing at least one cyanate ester compound, wherein the phosphazene compound (D) comprises a phenolic hydroxyl group-containing phenoxyphosphazene compound (D-1) and/or a crosslinked phenoxyphosphazene compound (D-2) prepared by crosslinking the phenoxyphosphazene compound (D-1), the crosslinked phenoxyphosphazene compound (D-2) having at least one phenolic hydroxyl group.

33. (New) The thermosetting resin composition according to claim 32, wherein the mixing ratio by weight (D)/[(A)+(D)+(E)] is in a range of 0.01 to 0.4, the mixing ratio by weight being the ratio of the weight of the phosphazene compound (D) to the total weight of the polyimide resin (A), the phosphazene compound (D), and the cyanate ester compound (E).

34. (New) The thermosetting resin composition according to claims 32 or 33, wherein the phenoxyphosphazene compound (D-1) comprises at least a cyclic phenoxyphosphazene compound (D-11) represented by general formula (2):



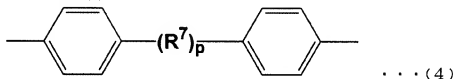
wherein m represents an integer of 3 to 25; R<sup>1</sup> and R<sup>2</sup> each represent a phenyl group or a hydroxyphenyl group; and at least one hydroxyphenyl group is contained per molecule and/or a linear phenoxyphosphazene compound (D-12) represented by general formula (3):



wherein n represents an integer of 3 to 10,000; R<sup>3</sup> and R<sup>4</sup> each represent a phenyl group or a hydroxyphenyl group; at least one hydroxyphenyl group is contained per molecule; R<sup>5</sup> represents -N=P(OC<sub>6</sub>H<sub>5</sub>)<sub>3</sub>, -N=P(OC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>(OC<sub>6</sub>H<sub>4</sub>OH), -N=P(OC<sub>6</sub>H<sub>5</sub>)(OC<sub>6</sub>H<sub>4</sub>OH)<sub>2</sub>, -N=P(OC<sub>6</sub>H<sub>4</sub>OH)<sub>3</sub>, -N=P(O)OC<sub>6</sub>H<sub>5</sub>, or -N=P(O)(OC<sub>6</sub>H<sub>4</sub>OH); and R<sup>6</sup> represents -P(OC<sub>6</sub>H<sub>5</sub>)<sub>4</sub>, -P(OC<sub>6</sub>H<sub>5</sub>)<sub>3</sub>(OC<sub>6</sub>H<sub>4</sub>OH), -P(OC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>(OC<sub>6</sub>H<sub>4</sub>OH)<sub>2</sub>, -P(OC<sub>6</sub>H<sub>5</sub>)(OC<sub>6</sub>H<sub>4</sub>OH)<sub>3</sub>, -P(OC<sub>6</sub>H<sub>4</sub>OH)<sub>4</sub>, -P(O)(OC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>, -P(O)(OC<sub>6</sub>H<sub>5</sub>)(OC<sub>6</sub>H<sub>4</sub>OH), or



35. (New) The thermosetting resin composition according to claim 34, wherein the crosslinked phenoxyphosphazene compound (D-2) is prepared by crosslinking the phenoxyphosphazene compound (D-1) with a phenylene-based crosslinking group containing at least any one of an o-phenylene group, an m-phenylene group, a p-phenylene group, and a bisphenylene group represented by general formula (4):



wherein  $R^7$  represents  $-C(CH_3)_2-$ ,  $-SO_2-$ ,  $-S-$ , or  $-O-$ ; and  $p$  represents 0 or 1.

36. (New) The thermosetting resin composition according to claim 35, wherein the crosslinked phenoxyphosphazene compound (D-2) is a phenylene-based crosslinked phenoxyphosphazene compound (D-21) having at least one phenolic hydroxyl group, in which the cyclic phenoxyphosphazene compound (D-11) and/or the linear phenoxyphosphazene compound (D-12) are used as the phenoxyphosphazene compound, and the phenylene-based crosslinking group lies between two oxygen atoms of the phenoxyphosphazene compound (D-1), the phenyl group and the hydroxyphenyl group being separated from the oxygen atoms, and the content of the phenyl group and the hydroxyphenyl group in the crosslinked phenoxyphosphazene compound is in a range of 50% to 99.9% based on the total

number of phenyl groups and hydroxyphenyl groups contained in the phenoxyphosphazene compound.

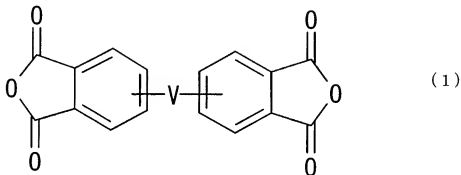
37. (New) The thermosetting resin composition according to claim 36, wherein the polyimide resin (A) contains a soluble polyimide resin.

38. (New) The thermosetting resin composition according to claim 37, wherein the polyimide resin (A) dissolves in an amount of 1% by weight or more in at least one organic solvent selected from the group consisting of dioxolane, dioxane, tetrahydrofuran, N,N-dimethylformamide, N,N-dimethylacetamide, and N-methyl-2-pyrrolidone in a temperature range of 15°C to 100°C.

39. (New) The thermosetting resin composition according to claim 38, wherein the polyimide resin (A) contains at least one component for imparting organic solvent solubility which is selected from the group consisting of an aliphatic compound component, an alicyclic compound component, and a bisphenol compound-alkylene oxide adduct component, so as to exhibit solubility in a mixed solvent containing a low-boiling organic solvent.

40. (New) The thermosetting resin composition according to claim 39, wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the acid

dianhydride component contains at least an acid dianhydride represented by general formula (1):



wherein V represents a direct bond, -O-, -O-T-O-, -O-CO-T-CO-O-, -(C=O)-, -C(CF<sub>3</sub>)<sub>2</sub>-, or -C(CH<sub>3</sub>)<sub>2</sub>-, T representing a divalent organic group.

41. (New) The thermosetting resin composition according to claim 40, wherein the polyimide resin (A) is produced by reacting an acid dianhydride component with a diamine component or an isocyanate component, and the diamine component or the isocyanate component contains at least any one of a siloxane diamine, a diamine containing a hydroxyl group and/or a carboxyl group, a diamine having amino groups at the meta positions, a diamine having amino groups at the ortho positions, an isocyanate having an amino group at the meta position, and an isocyanate having an amino group at the ortho position.

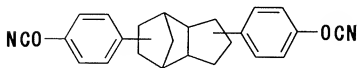
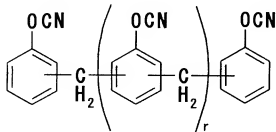
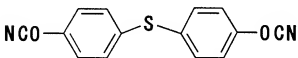
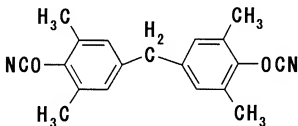
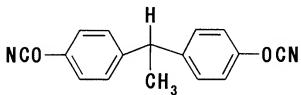
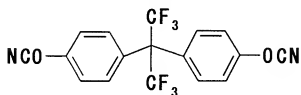
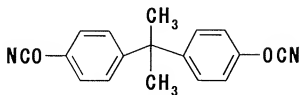
42. (New) The thermosetting resin composition according to claim 41, wherein the cyanate ester compound (E) includes at least one compound selected

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from the group consisting of compounds represented by the group of general formulae (1):





Group of general  
formulae (1)

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wherein r represents 0 to 4.